RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/774,076 A

Source: IFW16

Date Processed by STIC: 8/23/06

ENTERED

IFW16

RAW SEQUENCE LISTING   DATE: 08/23/2006
PATENT APPLICATION: US/10/774,076A   TIME: 09:07:35

Input Set : A:\161USUT01.ST25.txt
Output Set: N:\CRF4\08232006\J774076A.raw

```
 3 <110> APPLICANT: Landolfi, Nicholas
 4         Tsurushita, Naoya
 5         Hinton, Paul
 6         Kumar, Shankar
 8 <120> TITLE OF INVENTION: Amphiregulin Antibodies and Their Use to Treat Cancer and
 9         Psoriasis
11 <130> FILE REFERENCE: 161 US UT01
13 <140> CURRENT APPLICATION NUMBER: US 10/774,076A
14 <141> CURRENT FILING DATE: 2004-02-06
16 <150> PRIOR APPLICATION NUMBER: US 60/445,640
17 <151> PRIOR FILING DATE: 2003-02-07
19 <150> PRIOR APPLICATION NUMBER: US 60/533,901
20 <151> PRIOR FILING DATE: 2003-12-30
22 <160> NUMBER OF SEQ ID NOS: 39
24 <170> SOFTWARE: PatentIn version 3.3
26 <210> SEQ ID NO: 1
27 <211> LENGTH: 252
28 <212> TYPE: PRT
29 <213> ORGANISM: Homo sapiens
31 <400> SEQUENCE: 1
33 Met Arg Ala Pro Leu Leu Pro Pro Ala Pro Val Val Leu Ser Leu Leu
34 1               5                   10                  15
37 Ile Leu Gly Ser Gly His Tyr Ala Ala Gly Leu Asp Leu Asn Asp Thr
38              20                  25                  30
41 Tyr Ser Gly Lys Arg Glu Pro Phe Ser Gly Asp His Ser Ala Asp Gly
42          35                  40                  45
45 Phe Glu Val Thr Ser Arg Ser Glu Met Ser Ser Gly Ser Glu Ile Ser
46      50                  55                  60
49 Pro Val Ser Glu Met Pro Ser Ser Ser Glu Pro Ser Ser Gly Ala Asp
50 65                  70                  75                  80
53 Tyr Asp Tyr Ser Glu Glu Tyr Asp Asn Glu Pro Gln Ile Pro Gly Tyr
54                  85                  90                  95
57 Ile Val Asp Asp Ser Val Arg Val Glu Gln Val Val Lys Pro Pro Gln
58              100                 105                 110
61 Asn Lys Thr Glu Ser Glu Asn Thr Ser Asp Lys Pro Lys Arg Lys Lys
62          115                 120                 125
65 Lys Gly Gly Lys Asn Gly Lys Asn Arg Arg Asn Arg Lys Lys Lys Asn
66      130                 135                 140
69 Pro Cys Asn Ala Glu Phe Gln Asn Phe Cys Ile His Gly Glu Cys Lys
70 145                 150                 155                 160
73 Tyr Ile Glu His Leu Glu Ala Val Thr Cys Lys Cys Gln Gln Glu Tyr
74                  165                 170                 175
77 Phe Gly Glu Arg Cys Gly Glu Lys Ser Met Lys Thr His Ser Met Ile
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78              180              185              190
81 Asp Ser Ser Leu Ser Lys Ile Ala Leu Ala Ala Ile Ala Ala Phe Met
82        195              200              205
85 Ser Ala Val Ile Leu Thr Ala Val Ala Val Ile Thr Val Gln Leu Arg
86     210              215              220
89 Arg Gln Tyr Val Arg Lys Tyr Glu Gly Glu Ala Glu Glu Arg Lys Lys
90 225              230              235              240
93 Leu Arg Gln Glu Asn Gly Asn Val His Ala Ile Ala
94              245              250
97 <210> SEQ ID NO: 2
98 <211> LENGTH: 119
99 <212> TYPE: PRT
100 <213> ORGANISM: Mus sp.
102 <400> SEQUENCE: 2
104 Glu Ile Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
105 1              5              10              15
108 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Ala Phe Thr Asn Tyr
109            20              25              30
112 Asn Met Tyr Trp Val Lys Gln Ser His Gly Lys Ser Leu Glu Trp Ile
113          35              40              45
116 Gly Tyr Ile Asp Pro Tyr Tyr Gly Asp Pro Gly Tyr Ser Gln Lys Phe
117     50              55              60
120 Lys Gly Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser Thr Ala Tyr
121 65              70              75              80
124 Met His Leu Asn Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
125            85              90              95
128 Ala Arg Arg Gly Asn Phe Pro Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly
129            100             105             110
132 Thr Thr Leu Thr Val Ser Ser
133          115
136 <210> SEQ ID NO: 3
137 <211> LENGTH: 107
138 <212> TYPE: PRT
139 <213> ORGANISM: Mus sp.
141 <400> SEQUENCE: 3
143 Asp Ile Lys Met Thr Gln Ser Pro Ser Ser Met Tyr Ala Ser Leu Gly
144 1              5              10              15
147 Glu Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Ile Asn Ser Tyr
148            20              25              30
151 Leu Ser Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Thr Leu Ile
152          35              40              45
155 Tyr Arg Ala Asn Arg Leu Val Asp Gly Val Pro Ser Arg Phe Ser Gly
156     50              55              60
159 Ser Gly Ser Gly Gln Asp Tyr Ser Leu Thr Ile Ser Ser Leu Glu Tyr
160 65              70              75              80
163 Glu Asp Met Gly Ile Tyr Tyr Cys Leu Gln Tyr Asp Glu Phe Pro Tyr
164            85              90              95
167 Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
168          100             105
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Input Set : A:\161USUT01.ST25.txt
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171 <210> SEQ ID NO: 4
172 <211> LENGTH: 116
173 <212> TYPE: PRT
174 <213> ORGANISM: Mus sp.
176 <400> SEQUENCE: 4
178 Glu Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Arg Ser Gly Ala
179 1               5                   10                  15
182 Ser Val Lys Leu Ser Cys Thr Ala Ser Gly Phe Asn Ile Lys Asp Tyr
183             20                  25                  30
186 Tyr Ile His Trp Val Lys Gln Arg Pro Glu Gln Gly Leu Glu Trp Ile
187         35                  40                  45
190 Gly Cys Ile Asp Pro Glu Asn Gly Asp Thr Glu Tyr Ala Pro Asn Phe
191     50                  55                  60
194 Gln Gly Arg Ala Thr Met Thr Ala Asp Thr Ser Ser Asn Thr Ala Tyr
195 65                  70                  75                  80
198 Leu Gln Leu Ser Ser Leu Thr Ser Glu Asp Thr Ala Val Tyr Tyr Cys
199             85                  90                  95
202 Tyr Gly Gly Thr Ile Thr Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val
203             100                 105                 110
206 Thr Val Ser Ala
207         115
210 <210> SEQ ID NO: 5
211 <211> LENGTH: 110
212 <212> TYPE: PRT
213 <213> ORGANISM: Mus sp.
215 <400> SEQUENCE: 5
217 Gln Ala Val Val Thr Gln Glu Ser Ala Leu Thr Thr Ser Pro Gly Glu
218 1               5                   10                  15
221 Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser
222             20                  25                  30
225 Asn Ser Ala Asn Trp Val Gln Glu Lys Pro Asp His Leu Phe Thr Gly
226         35                  40                  45
229 Leu Ile Gly Gly Thr Ile Asn Arg Val Pro Gly Val Pro Ala Arg Phe
230     50                  55                  60
233 Ser Gly Ser Leu Ile Gly Asp Lys Ala Ala Leu Thr Ile Thr Gly Ala
234 65                  70                  75                  80
237 Gln Thr Glu Asp Glu Ala Ile Tyr Phe Cys Ala Leu Trp Tyr Ser Asn
238             85                  90                  95
241 His Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
242             100                 105                 110
245 <210> SEQ ID NO: 6
246 <211> LENGTH: 20
247 <212> TYPE: DNA
248 <213> ORGANISM: Artificial
250 <220> FEATURE:
251 <223> OTHER INFORMATION: oligonucleotide
253 <400> SEQUENCE: 6
254 gccagtggat agactgatgg                                        20
257 <210> SEQ ID NO: 7
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Input Set : A:\161USUT01.ST25.txt
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258 <211> LENGTH: 21
259 <212> TYPE: DNA
260 <213> ORGANISM: Artificial
262 <220> FEATURE:
263 <223> OTHER INFORMATION: oligonucleotide
265 <400> SEQUENCE: 7
266 gatggataca gttggtgcag c                                          21
269 <210> SEQ ID NO: 8
270 <211> LENGTH: 414
271 <212> TYPE: DNA
272 <213> ORGANISM: Mus sp.
274 <400> SEQUENCE: 8
275 atggaatgga gatggatctt tctcttcctc ctgtcaggaa ctacaggtgt ccactctgag   60
277 atccagctgc agcagtctgg acctgagctg gtgaagcctg gggcttcagt gaaggtatcc  120
279 tgcaaggctt ctggttatgc attcactaac tacaacatgt actgggtgaa gcagagccat  180
281 ggaaagagcc ttgagtggat tggatatatt gatccttact atggtgatcc tggctacagc  240
283 cagaagttca agggcaaggc cacattgact gttgacaagt cctccagcac agcctacatg  300
285 catctcaaca gcctgacatc tgaggactct gcagtctatt actgtgcaag acggggtaac  360
287 ttcccgtact actttgacta ctggggccaa ggcaccactc tcacagtctc ctca         414
290 <210> SEQ ID NO: 9
291 <211> LENGTH: 138
292 <212> TYPE: PRT
293 <213> ORGANISM: Mus sp.
295 <400> SEQUENCE: 9
297 Met Glu Trp Arg Trp Ile Phe Leu Phe Leu Leu Ser Gly Thr Thr Gly
298 1               5                   10                  15
301 Val His Ser Glu Ile Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys
302             20                  25                  30
305 Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Ala Phe
306         35                  40                  45
309 Thr Asn Tyr Asn Met Tyr Trp Val Lys Gln Ser His Gly Lys Ser Leu
310     50                  55                  60
313 Glu Trp Ile Gly Tyr Ile Asp Pro Tyr Tyr Gly Asp Pro Gly Tyr Ser
314 65                  70                  75                  80
317 Gln Lys Phe Lys Gly Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser
318                 85                  90                  95
321 Thr Ala Tyr Met His Leu Asn Ser Leu Thr Ser Glu Asp Ser Ala Val
322             100                 105                 110
325 Tyr Tyr Cys Ala Arg Arg Gly Asn Phe Pro Tyr Tyr Phe Asp Tyr Trp
326             115                 120                 125
329 Gly Gln Gly Thr Thr Leu Thr Val Ser Ser
330     130                 135
333 <210> SEQ ID NO: 10
334 <211> LENGTH: 381
335 <212> TYPE: DNA
336 <213> ORGANISM: Mus sp.
338 <400> SEQUENCE: 10
339 atgaggaccc ctgctcagtt tcttggaatc ttgttgctct ggtttccagg tatcaaatgt   60
341 gacatcaaga tgacccagtc tccatcttcc atgtatgcat ctctaggaga gagagtcact  120
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PATENT APPLICATION: US/10/774,076A   TIME: 09:07:35

Input Set : A:\161USUT01.ST25.txt
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```
343 atcacttgca aggcgagtca ggacattaat agctatttaa gctggttcca gcagaaacca    180
345 gggaaatctc ctaagaccct gatctatcgt gcaaacagat tggtagatgg ggtcccatca    240
347 aggttcagtg gcagtggatc tgggcaagat tattctctca ccatcagcag cctggagtat    300
349 gaagatatgg gaatttatta ttgtctacag tatgatgagt ttccgtacac gttcggaggg    360
351 gggaccaagc tggaaataaa a                                                381
354 <210> SEQ ID NO: 11
355 <211> LENGTH: 127
356 <212> TYPE: PRT
357 <213> ORGANISM: Mus sp.
359 <400> SEQUENCE: 11
361 Met Arg Thr Pro Ala Gln Phe Leu Gly Ile Leu Leu Leu Trp Phe Pro
362 1               5                   10                  15
365 Gly Ile Lys Cys Asp Ile Lys Met Thr Gln Ser Pro Ser Ser Met Tyr
366             20                  25                  30
369 Ala Ser Leu Gly Glu Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp
370         35                  40                  45
373 Ile Asn Ser Tyr Leu Ser Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro
374     50                  55                  60
377 Lys Thr Leu Ile Tyr Arg Ala Asn Arg Leu Val Asp Gly Val Pro Ser
378 65                  70                  75                  80
381 Arg Phe Ser Gly Ser Gly Ser Gly Gln Asp Tyr Ser Leu Thr Ile Ser
382                 85                  90                  95
385 Ser Leu Glu Tyr Glu Asp Met Gly Ile Tyr Tyr Cys Leu Gln Tyr Asp
386             100                 105                 110
389 Glu Phe Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
390             115                 120                 125
393 <210> SEQ ID NO: 12
394 <211> LENGTH: 119
395 <212> TYPE: PRT
396 <213> ORGANISM: Artificial
398 <220> FEATURE:
399 <223> OTHER INFORMATION: humanized antibody
401 <400> SEQUENCE: 12
403 Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
404 1               5                   10                  15
407 Ser Val Lys Ile Ser Cys Lys Val Ser Gly Tyr Ala Phe Thr Asn Tyr
408             20                  25                  30
411 Asn Met Tyr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
412         35                  40                  45
415 Gly Tyr Ile Asp Pro Tyr Tyr Gly Asp Pro Gly Tyr Ser Gln Lys Phe
416     50                  55                  60
419 Lys Gly Lys Ala Thr Leu Thr Val Asp Lys Ser Thr Ser Thr Ala Tyr
420 65                  70                  75                  80
423 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
424                 85                  90                  95
427 Ala Arg Arg Gly Asn Phe Pro Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly
428             100                 105                 110
431 Thr Leu Val Thr Val Ser Ser
432             115
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 08/23/2006
PATENT APPLICATION: US/10/774,076A   TIME: 09:07:36

    Input Set : A:\161USUT01.ST25.txt
    Output Set: N:\CRF4\08232006\J774076A.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:13; Xaa Pos. 31,32,33,34,35,50,51,52,53,54,55,56,57,58,59,60,61,62,63
Seq#:13; Xaa Pos. 64,65,66,99,100,101,102,103,104,105,106,107,108
Seq#:15; Xaa Pos. 24,25,26,27,28,29,30,31,32,33,34,50,51,52,53,54,55,56,89
Seq#:15; Xaa Pos. 90,91,92,93,94,95,96,97

Invalid <213> Response:
Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:6,7,12,14,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36
Seq#:37,38,39

VERIFICATION SUMMARY   DATE: 08/23/2006
PATENT APPLICATION: **US/10/774,076A**   TIME: 09:07:36

Input Set : **A:\161USUT01.ST25.txt**
Output Set: **N:\CRF4\08232006\J774076A.raw**

L:462 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:16
M:341 Repeated in SeqNo=13
L:555 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:16
M:341 Repeated in SeqNo=15